Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A quadrature modulation apparatus comprising:

an in-phase signal converter ~~converting means~~ that outputs an in-phase conversion signal by mixing an in-phase local signal of a predetermined local frequency with an in-phase correction user signal obtained by adding an in-phase user signal to an in-phase correction signal of a sinusoidal voltage;

a quadrature signal converter ~~converting means~~ that outputs a quadrature conversion signal by mixing a quadrature local signal which is different in phase by 90 degrees from the in-phase local signal, with a quadrature correction user signal obtained by adding a quadrature user signal to a quadrature correction signal, which is different in phase by 90 degrees from the in-phase correction signal;

an adder ~~adding means~~ that adds the in-phase conversion signal to the quadrature conversion signal;

an output voltage measurer ~~measuring means~~ that measures an output voltage of said adder ~~adding means~~; and

an error <u>determiner</u> <s>determining means</s> that determines an error of the quadrature modulation based upon the measurement result of said output voltage <u>measurer</u> <s>measuring means</s>.

2. (Currently Amended) The quadrature modulation apparatus according to claim 1, wherein said error <u>determiner</u> <s>determining means</s> measures the error of the quadrature modulation based upon a relationship of the output voltage of said <u>adder</u> <s>adding means</s> with respect to the phase of the in-phase correction signal or the quadrature correction signal.

3. (Currently Amended) The quadrature modulation apparatus according to claim 1, wherein said error <u>determiner</u> <s>determining means</s> determines an error relating to an amplitude, an orthogonality, and an offset of the in-phase user signal and the quadrature user signal.

4. (Currently Amended) A quadrature modulation apparatus comprising:

a signal <u>converter</u> <s>converting means</s> that outputs a conversion signal by mixing a local signal of a predetermined local frequency with an offset user signal obtained by adding a DC voltage signal to a user signal;

an output voltage <u>measurer</u> <s>measuring means</s> that measures a voltage of the conversion signal; and

an optimum voltage <u>decider</u> <s>deciding means</s> that decides an optimum voltage such that the voltage measured by said output voltage <u>measurer</u> <s>measuring means</s> is minimum.

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5. (Currently Amended) A quadrature modulation method comprising:

~~an in-phase signal converting step of~~ outputting an in-phase conversion signal by mixing an in-phase local signal of a predetermined local frequency with an in-phase correction user signal obtained by adding an in-phase user signal to an in-phase correction signal of a sinusoidal voltage;

~~a quadrature signal converting step of~~ outputting a quadrature conversion signal by mixing a quadrature local signal which is different in phase by 90 degrees from the in-phase local signal, with a quadrature correction user signal obtained by adding a quadrature user signal to a quadrature correction signal, which is different in phase by 90 degrees from the in-phase correction signal;

~~an adding step of~~ adding the in-phase conversion signal to the quadrature conversion signal;

~~an output voltage measuring step of~~ measuring an output voltage of <u>the added signals</u> ~~said adding step~~; and

~~an error determining step of~~ determining an error of the quadrature modulation based upon the <u>measured</u> ~~measurement result of said~~ output voltage ~~measuring step~~.

6. (Currently Amended) A quadrature modulation method comprising:

~~a signal converting step of~~ outputting a conversion signal by mixing a local signal of a predetermined local frequency with an offset user signal obtained by adding a DC voltage signal to a user signal;

an output voltage measuring step of measuring [[a]] an output voltage of the conversion signal; and

an optimum voltage deciding step of deciding an optimum voltage such that the voltage measured by said output voltage measuring step is minimum.

7. (Currently Amended) A program of instructions for execution by a the computer to perform a processing of a quadrature modulation apparatus including: an in-phase signal converter converting means that outputs an in-phase conversion signal by mixing an in-phase local signal of a predetermined local frequency with an in-phase correction user signal obtained by adding an in-phase user signal to an in-phase correction signal of a sinusoidal voltage; a quadrature signal converter converting means that outputs a quadrature conversion signal by mixing a quadrature local signal which is different in phase by 90 degrees from the in-phase local signal, with a quadrature correction user signal obtained by adding a quadrature user signal to a quadrature correction signal, which is different in phase by 90 degrees from the in-phase correction signal; an adder adding means that adds the in-phase conversion signal to the quadrature conversion signal; and an output voltage measurer measuring means that measures an output voltage of said adder adding means, said processing comprising:

an error determining step of determining an error of the quadrature modulation based upon the measurement result of said measured output voltage measuring means.

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8. (Currently Amended) A program of instructions for execution by a ~~the~~ computer to perform a processing of a quadrature modulation apparatus including: a signal <u>converter</u> ~~converting means~~ that outputs a conversion signal by mixing a local signal of a predetermined local frequency with an offset user signal obtained by adding a DC voltage signal to a user signal; and an output voltage <u>measurer</u> ~~measuring means~~ that measures a voltage of the conversion signal, said processing comprising:

~~an optimum voltage deciding step of~~ deciding an optimum voltage such that the ~~voltage~~ measured ~~by said~~ output voltage ~~measuring means~~ is minimum.

9. (Currently Amended) A computer-readable medium having a program of instructions for execution by a ~~the~~ computer to perform a processing of a quadrature modulation apparatus including: an in-phase signal <u>converter</u> ~~converting means~~ that outputs an in-phase conversion signal by mixing an in-phase local signal of a predetermined local frequency with an in-phase correction user signal obtained by adding an in-phase user signal to an in-phase correction signal of a sinusoidal voltage; a quadrature signal <u>converter</u> ~~converting means~~ that outputs a quadrature conversion signal by mixing a quadrature local signal which is different in phase by 90 degrees from the in-phase local signal, with a quadrature correction user signal obtained by adding a quadrature user signal to a quadrature correction signal, which is different in phase by 90 degrees from the in-phase correction signal; an <u>adder</u> ~~adding means~~ that adds the in-phase conversion signal to the quadrature conversion signal; and an output voltage

measurer ~~measuring means~~ that measures an output voltage of said <u>adder</u>
~~adding means~~, said processing comprising:

~~an error determining step of~~ determining an error of the quadrature
modulation based upon the ~~measurement result of said~~ <u>measured</u> output voltage
~~measuring means~~.

10. (Currently Amended) A computer-readable medium having a program
of instructions for execution by <u>a</u> ~~the~~ computer to perform a processing of a
quadrature modulation apparatus including: a signal <u>converter</u> ~~converting means~~
that outputs a conversion signal by mixing a local signal of a predetermined local
frequency with an offset user signal obtained by adding a DC voltage signal to a
user signal; and an output voltage <u>measurer</u> ~~measuring means~~ that measures a
voltage of the conversion signal, said processing comprising:

~~an optimum voltage deciding step of~~ deciding an optimum voltage such
that the ~~voltage~~ measured ~~by said~~ output voltage ~~measuring means~~ is minimum.